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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/038,492	01/02/2002	Raymond Lee Call II	DANAI-125A	5529

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EXAMINER

BRINEY III, WALTER F

ART UNIT PAPER NUMBER

2615

DATE MAILED: 11/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/038,492

Applicant(s)

CALL ET AL.

Examiner

Walter F. Briney III

Art Unit

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 April 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13 is/are allowed.
- 6) ☒ Claim(s) 1-12 and 14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 24 April 2006 has been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. **Claims 1, 2, 4-12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over David et al. (US Patent 6,792,125) in view of Schroeder et al. (US Patent 4,122,315) in view of Gefvert (US Patent 4,502,149) and further in view of Kashiwabara (US Patent 4,552,242).**

Claim 1 is limited to "a three-way speaker system having a translatable midrange/tweeter module." As shown in the Final Rejection filed 20 September 2005, David anticipates all limitations of the claim with the exception of a midrange/tweeter module comprising a midrange speaker and a separate tweeter speaker. However, this deficiency is overcome by an obvious modification.

As a first matter, David clearly discloses that the invention described therein is neither limited to tweeter embodiments nor single translatable speakers. See column 5, lines 42-51. Moreover, the speaker of David represents a coaxial two-speaker arrangement as taught by Schroeder in column 1, lines 33-44. As noted by Schroeder, since mid frequencies are mainly generated by the woofer, Doppler distortion of the mid frequencies occurs due to the woofer's low frequency generation. See column 1, lines 41-44. In solution, the prior art uses a third mid frequency speaker. See column 1, lines 45-53.

In review, a three-way coaxial speaker has been shown to be obvious, wherein the tweeter pivots in order to preserve directionality. Gefvert expressly teaches providing a moveable midrange/tweeter module 2. See Abstract. The motivation for having such a module is that both mid and high frequencies are very directional and will benefit from being translatable relative to the central axis of the woofer for the same reasons outlined in column 1, lines 15-38, of David. Also see column 1, line 5, through column 3, line 19, of Gefvert.

With regard to placement of said mid frequency speaker, it is noted that both Schroeder and Gefvert propone connecting a yoke across the woofer, the yoke holding the tweeter and midrange speaker in planar alignment. In contrast, Kashiwabara discloses mounting the mid frequency speaker in coaxial alignment with both the woofer and tweeter while specifically noting that the planar alignment approach distorts sound frequency characteristics and directionality. The sole figure of Kashiwabara depicts the

exact manner in which the midrange speaker and tweeter are coupled to each other as well as the woofer.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use a midrange speaker in combination with the two speakers of David as taught by Schroeder; enable the midrange speaker to be translated about the central axis of the woofer in the same manner as the tweeter as taught by Gefvert; and coaxially arrange both the midrange and tweeter into a single translatable module as taught by Kashiwabara all for the purpose of reducing Doppler distortion, directional effects and frequency characteristic distortion as well as saving space over a speaker whose major axis is expanded out to accommodate two planar-aligned speakers.

Claims 2, 4-12 and 14 are limited to "the system as recited in claim 1," as covered by David in view of Schroeder, Gefvert and Kashiwabara. These claims are rejected for the reasons presented supra regarding claim 1 as well as the reasons set forth in the Final Rejection filed 20 September 2005, and hereby incorporated by reference.

2. **Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over David in view of Schroeder in view of Gefvert in view of Kashiwabara and further in view of Pfister (US Patent 6,161,262).**

Claim 3 is limited to "the system as recited in claim 1," as covered by David in view of Schroeder, Gefvert and Kashiwabara. These claims are rejected for the reasons presented supra regarding claim 1 as well as the reasons set forth in the Final Rejection filed 20 September 2005, and hereby incorporated by reference.

Allowable Subject Matter

The following is a statement of reasons for the indication of allowable subject matter:

3. Claim 13 is allowed.

Claim 13 has been rewritten in independent form incorporating all the limitations of its base claim(s) thereby obviating the previous claim objection. Thus, claim 13 is allowable over the cited prior art.

Response to Arguments

Applicant's arguments with respect to claims 1-12 and 14 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Walter F. Briney III whose telephone number is 571-272-7513. The examiner can normally be reached on M-F 8am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on 571-272-7564. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


SINH TRAN
SUPERVISORY PATENT EXAMINER

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